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10/604,331

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FORM		First Named Inventor		STEPHEN L. BRUFORD			
(to be used for all correspondence after initial filing)		Art Unit		TO BE ASSIGNED			
		Examiner Name		TO BE ASSIGNED			
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Fee Transmittal Form	Drawing(s)				nce Communication ogy Center (TC)	
Fee Attached	Licensing		Appeal Communication to Board of Appeals and Interferences				
Amendment/Reply	Petition	Petition To Make Special (Ap Petition to Convert to a Provisional Application Power of Attorney, Revocation Change of Correspondence Address Oth			Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) Proprietary Information		
After Final	Provision						
Affidavits/declaration(s)					Status Letter	tatus Letter ther Enclosure(s) (please lentify below):	
Extension of Time Request	Terminal						
Express Abandonment Request Request for Refund				 			
Information Disclosure Statement		ber of CD(s)					
Certified Copy of Priority Document(s)	Remarks Other Enclosure	(s) 1. Statemen	nt Re	egardi	ing Pre-	-Exam Searches;	
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Application Number

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Commissioner for Patents, Washington, DC 20231.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:

Bruford et al

Group Art Unit:

To be assigned

Serial No.:

10/604,331

Examiner:

To be assigned

Filed:

July 11, 2003

Attorney Docket No.:

203-0721

For:

PICKUP TRUCK WITH LIFT ASSISTED TAILGATE SYSTEM

STATEMENT REGARDING PRE-EXAMINATION SEARCHES

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

Applicants hereby state, in accordance with MPEP § 708.02 (VIII)(C), that preexamination searches for references related to the claimed subject matter were performed by Applicants and by Applicants' attorneys. The Field of Search included: (1) Class 296, Subclasses 57.1, 106, 146.8: U.S. and Foreign; (2) Class 16, Subclass 75: U.S. only; and (3) Class 49, Subclass 386: U.S. only.

The references deemed to be most closely related to the claimed subject matter are listed in the accompanying IDS. A detailed discussion of the references cited in the IDS and how the claimed subject matter is distinguishable over the cited references is included in the accompanying Statement Regarding Cited References.

Respectfully submitted,

Jerome R. Drouillard

egistration No. 28,008

DYKEMA GOSSETT PLLC 315 E. Eisenhower Parkway,

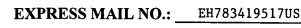
Suite 100

Ann Arbor, MI. 48108

(734) 214-7670

Enclosure

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Bruford et al

Group Art Unit:

To be assigned

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203-0721

For:

PICKUP TRUCK WITH LIFT ASSISTED TAILGATE SYSTEM

STATEMENT REGARDING CITED REFERENCES

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

Pursuant to MPEP § 708.02 (VIII)(E), Applicants provide herein a detailed discussion of those references deemed by the Applicants to be most closely related to the subject matter claimed in the above-identified application. The references are listed, and a copy of each of the references is included, in the accompanying Information Disclosure Statement Under 37 C.F.R. § 1.97 ("IDS"). Applicants also herein state with particularity required by 37 C.F.R. § 1.111(b) and (c) how the claimed subject matter is patentable over these cited references.

According to the present invention, an automotive vehicle such as a pickup truck includes a door, typically a tailgate, adapted to pivot about a generally horizontal pivot axis, with the door having a shell defining an interior space. A first hinge bearing retainer is attached to a first end of the door and has a first bearing insert housed within the retainer. A first pivot post is rigidly attached to a structure such as a side pillar adjoining a first end of the pivot axis, with the pivot post engaging a bore formed in the interior of the said first bearing insert. A second hinge bearing retainer is attached to the second end of the door and has a second bearing insert housed therein. A second pivot post is rigidly attached to a structure such as a second side pillar adjoining a second end of the pivot axis. The second post engages the second bearing insert such that the second pivot post and the second bearing insert are rotationally locked. This means as

the tailgate is pivoted, the second bearing insert will rotate within the second bearing retainer. In other words, the second bearing insert will rotate with respect to the second bearing retainer because the second bearing insert will not rotate at with respect to the tailgate. This in turn means that the tailgate itself, including the second bearing retainer, will rotate about the second bearing insert.

The present vehicle and closure panel further includes a full floating torsion bar having a first end rotationally grounded within the interior of the door, and a second end engaged with and rotationally locked with the previously described second bearing insert such that the torsion bar will be subjected to torsional loading as the door is pivoted. The second pivot post is oriented so that the torsion bar is subjected to a minimal torsional load tending to open the door when the door is in a closed position. The orientation of the second pivot post further allows the torsion bar to be subjected to a maximum torsional load tending to close the door when the door is in a fully open position, which normally corresponds to about 90° of rotation from the closed position.

A torsion bar tailgate lift assist system according to the present invention solves the problems inherent with prior art tailgate systems, but at a lower cost, while providing a torsion bar which is full floating. As used herein, the term 'full floating' means that if the torsion bar of the present inventive system were to break, the pivoting function and retention of the tailgate to the body of the pickup truck would not be adversely affected, because the tailgate pivots will function perfectly well without any intervention by the torsion bar. In effect, the torsion bar and door assembly are self-contained.

U.S. Patent No. 2,984,517 to Farrow et al.: This reference discloses a torsion bar equipped station wagon tailgate which torsion bar also serves as a opening limiter so as to prevent the tailgate from opening past a certain position. Because the torsion bar is extended outside the tailgate and is attached to the body of the vehicle itself, tailgate cannot be removed from the vehicle without the use of tools and will not be suitable for pickup truck according to the present invention. And, if the torsion bar breaks, the tailgate may be allowed to suddenly fall to a position past the normal maximum opening position.

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U.S. Patent No. 3,031,225 to Saffer et al.: This reference discloses a second type of torsion bar for a station wagon tailgate in which the torsion bar extends outwardly from the vehicle's tailgate and again it is connected with mechanism outside the tailgate. This offers the same disadvantage as a system of the '517 Patent because the tailgate cannot be easily separated from the vehicle, and in the event that the torsion bar breaks, the tailgate may be allowed to fall to a position which is undesirable.

U.S. Patent No. 3,336,070 to Jackson.: This reference discloses a torsion bar lift assist system in which the breakage of the bar will cause the tailgate to operate improperly -- i.e. sag on one side under load. This is an undesirable characteristic of the system of '070 Patent.

U.S. Patent No. 4,4143,904 to Cooper et al.: This reference illustrates a very complicated tailgate hinge mechanism in which a torsion bar is engaged with a linked mechanism outside the tailgate of the vehicle. This system will not allow ready removal of a tailgate, as is required of a pickup truck, and breakage of the torsion barmay prevent pivoting of the vehicle's tailgate, which is of course undesirable.

U.S. Patent No. 5,358,301 to Konchan et al.: This reference discloses a torsion bar system for a pickup truck in which breakage of the torsion bar may allow unintended separation of the tailgate from the vehicle, which is highly undesirable. This results because the torsion bar itself forms a pivot for the tailgate.

U.S. Patent No. 5, 988,724 to Wolda.: This reference discloses a torsion bar lift assist system for a pickup truck tailgate which too suffers from the deficiency that breakage of the torsion bar may cause a tailgate pivot to separate from the tailgate, thereby allowing the tailgate to either become loose, or to separate from the vehicle itself.

For the reasons described above, Applicant submits that the claims in the above application are allowable over the prior art.

Respectfully submitted,

Jerome R. Drouillard

Registration No. 28,008

DYKEMA GOSSETT PLLC 315 E. Eisenhower Parkway,

Suite 100

Ann Arbor, MI. 48108

(734) 214-7670

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Dated: July

Enclosure